The Auto Trouble Solver

If you have any problems or wish any information about your automobile, write us and we will be pleased to answer you under this heading in Sunday's paper.

ADDRESS AUTOMOBILE EDITOR

Q. I am the owner of a (———) touring car. Several weeks ago I drained the oil out of the crankcase as well as the transmission and replaced it with new oil. I used the same grade of heavy transmission oil which I had formerly. However, now, when shifting from first to second, or second to third speed, the gears very often cause a raking or grating sound. This does not always happen, as sometimes it shifts quietly as it formerly did. Last summer we never were bothered with a noisy shift.

I have examined the clutch to see if it releases properly and also pay special attention to freeing the clutch pedal before shifting. We also have looked into the filler cap to make sure there was oil enough. Recently the carburetor was adjusted and the engine runs somewhat faster, without acceleration, than it did before. Do you think the raking is from the last mentioned cause, or can you suggest what might be the fault? E. L. S.

A. You, yourself, seem to have a pretty clear knowledge of what might be the cause of clashing gears I might suggest that a spinning clutch and also one which stops spinning too quickly might also cause the clash. Examine the throw-out collar and bearing, as this may need lubrication and cause the clutch to stop spinning too quickly.

I cannot see how the engine speed can have any effect on the shifting of the gears when the clutch does not drag. Of course, as a car gets older and the bearings wear, the shafts of the transmission will change their alignment slightly and this will result in a little noise when shifting.

Q. Will you please answer the following questions?

1. How can I get the valves out of engine? I have followed instructions, but it will not work.

2. My brakes drag and I have tried every way to stop them, but cannot do so. They drag all the way around the drum.

3. I can never start without a jerk. I just put neatsfoot oil on the clutch. It is a 1915 (———) car.

J. R. W.

A. 1. The valve cages of overhead-valve engines often are very hard to remove as they sometimes "freeze in." Try this: Remove the locking nuts, and brass washers, and then pour some kerosene around the cage and let it work down. Next put on the nuts and then unscrew them about a half-turn. Start the engine and let it run until it gets good and hot. Then, working as quickly as possible, try to pry out the cages, using a block of wood as a fulcrum and a tire tool as a lever. Put the end of the tool under the springs and strike the other end with the palm of the hand. You will generally find that parts such as the cages can be easily removed on a hot engine, when they cannot be on a cold engine.

2. If the brake bands are dragging all the way around, then you undoubtedly have the rods set too tight. Loosen them and also pry out the band carriers.

3. Get a number of the thin corks found in bottle caps and insert them under the leather of the clutch. They will probably help. You may have your springs set up too tight.

Q. Please explain the action and construction of the Kingston carburetor.

2. What is a good solution with which to flush out the tubes of a radiator?

3. Should the casings be removed from the rims at the end of the season, or is it sufficient to simply deflate the tires? S. H. G.

A. 1. The Kingston carburetor is a surface or puddle carburetor at slow speed and a spray carburetor at high speed. The carburetor is so constructed that a pan is suspended in the float chamber at such a height that the gasoline can flow through a little hole in the bottom of the pan and make a thin puddle in it. In the air passage there is a baffle plate which will forcefully throw the air against this puddle, thus agitating it. The friction of the air will then carry some of the gasoline along with it. At high speeds the puddle will be completely swept away, and the gasoline will spray out of the small hole in the pan, just as it does from the ordinary spray nozzle.

2. Water, in which some common soda, in the proportion of about a handful to a bucket has been dissolved, is as good a solution for flushing the radiator as any.

3. I do not consider it necessary to remove the casings from the rims, but I would have the tires inflated rather than deflated. Moisture is more likely to get at the fabric of the tire when it is lying around than when it is on the rim, and it is this moisture which you must look out for.

Q. I would like your opinion on the following: The clutch of my 1913 (———) will slow up the engine and almost stall it when it is disengaged. I am sure it has enough throwout. I have also adjusted it to every half-turn on the adjusting nut, but it will do no good. Also please let me know what causes the clutch to make a terrible growl when the car is running? F. C.

A. That terrible growl gives a clue to all of your trouble, I believe. The bearing of your throwout collar is undoubtedly worn out, or cracked. This will cause the growl and also put the load on the engine when the clutch is disengaged.

Q. I had the valves of my (———) car ground recently, and now the car works fine when I start out, but after I have driven three or four miles it begins to miss and loses power. The spark plugs are O. K. and when I test for a spark they are all working. Do you think my carburetor needs adjusting? It used to work fine and I don't like to change it. B. O.

A. The mechanic, when adjusting the valves after grinding, undoubtedly did not leave enough clearance, and adjusted on a cold engine instead of a hot one. The expansion of the valves causes one or more of them not to seat when the engine is hot. Have the valve readjusted while the engine is warm.

Q. Can you tell me what the bore of the old Thomas flier of about 1912 is? What is the rated horsepower for insurance? E. J. K.

A. The 1912 Thomas had a bore of 4.5 inches, giving it an S. A. E. horsepower rating of 48.4.

Q. I have come to the conclusion that if an auxiliary condenser could be shunted around a Ford timer, very little trouble would result from the coil vibrators sticking. For the extra condenser would send a reverse current through the coil and thus fire the charge. If this can be done with one condenser kindly show by diagram how. Is it practical? What capacity would the condenser need? I can figure no less than four condensers. C. T. A.

A. I fail to see how the extra condenser could have any effect in any way, unless it be to add an extra place for a short-circuit to develop. The Ford timer or commutator is different from the interrupters of other systems, which are often called timers, in that in the former, the motor makes contact and passage for the current, so that a condenser placed here would be inoperative. In the latter case the points by opening suddenly stop the current, but because of the momentum of the current in the long coil the coltage builds very high at the points, and were the condenser not furnished current would burst across the air gap between the points. If you wish to carry out your experiment you will have to use four condensers.

Q. What do you think of the improvements as per the inclosed slips on a (———) car, 1912, in fine condition? Wear cannot be avoided altogether and then garage charges are constantly increasing owing to war conditions or otherwise.

SUBURBANITE.

A. The attachments for adjusting the valves undoubtedly will prove worth while, and of the two types shown I like the 886th better. The transmission brake hand will undoubtedly save time, but as I have had no experience with it, I can make no positive statement as to its value.

Q. I have a 1915 (———) car. I would like to know if it would be all right to put valve-stem adjustments on the push rods; that is, those little caps like with discs. Would it make the motor lose any of its power, and why is it that the distance between the push rob and valve stem is to be not less than one-sixty-fourth and not more than one-fifteenth of an inch. When differential gear and pinion are not worn is there anything to be done to make the rear axle run a little quieter? O. K.

A. The attachment will prove worth while, I think. There must be a little play between the push rod and valve stem, to allow for the expansion of the stem when it gets hot. If the clearance is too much the valve will not open far enough.

Unless the noise is extremely bad, I would leave the rear axle alone, as it is easy to make matters worse rather than better. Replacing the thrust washers on the sides of the differential may help, however.

Q. I have a 1910 (———) car, with Atwater Kent ignition system. The engine misses and yet the plugs will spark as the engine runs. I have taken the plugs out one at a time and let the engine run and the plugs all spark. Could the trouble be in the breaker box? The contact points do not come together very good when I crank the engine over by hand.

I would also be glad if you will tell me if too much gas will have the same effect as too little?

A.C.A.

A. I believe that you can assume that your ignition is O. K. and look for the trouble elsewhere. Loss of compression, or, possibly, poor mixture is undoubtedly the cause of the trouble. Your valves may need grinding or your rings badly worn. Both too little and too much gas will cause missing, the former generally being accompanied by "popping" in the carburetor, however.

Q. My car, which is a 1916 (———) gets very hot now and also chokes a lot. I have tightened my fan belt and also cleaned out the radiator with soda. This helped a little, but I think the engine still gets too hot and there has been no improvement in the choking. What do you suggest that I do more? R. F. B.

A. The combination of choking and overheating, makes me believe that you have your mixture too rich. Carbon might also be to blame.

Q. Can you tell me what kind of ignition is used in the new army Liberty trucks? Is it battery or magneto? Are they good trucks?

E. Y. T.

A. Those which I have seen have a double ignition, consisting of a separate high-tension magneto, and separate distributor system, there being two spark plugs for each cylinder. They are wonderful cars.

Q. The way I run my car, I use the current from my battery quicker than I recharge it, as I do most of my driving at night, and make but short runs. Having the battery out of the car so much for charging is annoying and I was thinking about running the engine for a few hours during the day to charge the battery, instead of sending it to a charging station. What is your opinion of the advisability of this.

J. J. K.

A. There is no reason why you cannot do as you suggest, but you will find it very expensive I am afraid. Perhaps the best thing to do is to get an extra battery and so have one battery to use while the other is being charged. You will find this cheaper in the end.

An Astounding Dissembler.

"What do you think of a man who will constantly deceive his wife "

"I think he is a wonder!"

FIRESTONE STEEL CO. IS ORGANIZED

Comes Into Existence as Largest Producer of Demountable Rims In World.

With the incorporation of the Firestone Steel Products company, Firestone park, Akron, Ohio, the rubber capitol of the world also appears in the public eye as a steel manufacturing center of a great importance to the automobile industry.

The new company, of which Mr. H. S. Firestone, its founder, has been elected president, comes into existence as the largest producer of demountable rims in the world. It has absorbed complete the interests of the Firestone Rim plant which alone did a $4,000,000 business last year supplying demountable rims to 132 car manufacturers out of a possible 184, and making 50 to 60 per cent of the solid truck tire rims used in America.

Men closely associated with the development of the demountable rim in America, regard the formation of the new company as a logical result of Mr. Firestone's leadership, beginning in the pioneer days of rim manufacture and continuing through his successful exposure of the Perlman rim patent fraud before Judge Hand in the United States district court at New York in June, 1917.

Telegrams and letters of congratulations to Mr. Firestone from leaders in the automobile world at that time showed how universal was the interest and how keen the pleasure of the motor car industry in the successful outcome of this case. The result was to free the industry from an unjust patent monopoly which had attempted to exact royalties from the Firestone company as it had from the other three rim manufacturers operating at that time.

Way back in the early days of tire making, the need of a demountable rim to relieve the motorist of most of the hardships attending a change of tires on the road had been recognized by Mr. Firestone. The first American demountable rim to attract public attention was the Firestone rim appearing on the winning car in an automobile race at Fairmount park, Philadelphia, in the fall of 1907. This was a wedge-on type of rim that established the wedged-on principle which underlies the construction of the modern Firestone rim.

Rims Become Big Factors.

Before demountable rims were adopted, however, much missionary work was done by the Firestone organization in stirring up interest on the subject, both among the public and the automobile trade in general. When it was seen that the demountable rim would become a big factor in popularizing the automobile, thus lending an added impetus to the growth of the motor car industry, there was a veritable stampede on the part of car manufacturers for demountable rims.

This popular demand may be said to have started during the years 1911 and 1912. Though first appearing on the more expensive cars, demountable rims soon became regular equipment on cars of lower price.

The stock in the new company is held for the Firestone Tire & Rubber company with the exception of the directors' qualifying shares. The stockholders of the tire company will, therefore, benefit from the growth of the newly formed steel products company.

The officials of the new company are the same as those of the Firestone Tire & Rubber Co., with the exception of J. G. Swain, becomes vice-president and factory manager. A full list of the officers follows:

H. S. Firestone, president; R. J. Firestone, vice-president; A. C. Miller, vice-president; J. G. Swain, vice-president and factory manager; S. G. Carkhuff, secretary; J. G. Robertson, treasurer.

Mr. Firestone states that in addition to the further development of the standard Firestone rim, the newly formed Firestone Steel Products company is expanding its business to include the manufacture of other metal accessories for automobile wheels and tires.

Years of Discretion.

"How soon should a girl be allowed to vote?"

"Oh, I suppose when she's taken out her first curl papers."

Overland Dealers to Give Tips to Tourists

Tens of thousands of people will be visitors at the sixteen great army training camps this summer. Parents, relatives and friends of the boys in training for overseas service will want to see them in camp and get an idea of these great soldier cities with their khaki-clad inhabitants.

This will undoubtedly mean that many of these visitors will motor to the camps from all parts of the Union, as the railroad facilities are all being used to speed up freight transportation, the automobile offers an ideal means for this kind of travel and as aid to relieving congestion.

Appreciating this greatly increased travel, the Willys-Overland company is now working out plans whereby every dealer will act as an information bureau for tourists. Word has just been sent out by John N. Willys to every distributor and dealer, located all over the United States, urging all motorists to use the Overland dealer to give them the best route from city to city, and asks every dealer to co-operate in every way with travelers, especially those who are going to the cantonments. By this plan it is believed that the Overland company may aid materially in helping the tourists to keep on the best roads and direct them over the shortest distance between intermediate points on their journey.